

CONTENTS

ORIGINAL SCIENTIFIC PAPERS

- S. Bosnar, J. Bronić, I. Krznarić, and B. Subotić:** Influence of the Concentrations of Aluminium and Silicon in the Liquid Phase on the Growth Kinetics of Zeolite A and X Microcrystals 1–8
- M. Marinov, S. Minchev, N. Stoyanov, G. Ivanova, M. Spassova, and V. Enchev:** Synthesis, Spectroscopic Characterization and *ab initio* Investigation of Thioanalogues of Spirohydantoins . . . 9–16
- R. Zimmer, K. Baumann, H. Sperner, G. Schulz, E. Haidl, and M. A. Grassberger:** Synthetic Modifications of Ascomycin. V. Access to Novel Ascomycin Derivatives by Replacement of the Cyclohexylvinylidene Subunit 17–27
- J. Šima and M. Izaković:** Different Photoredox Reactivity of Structurally Similar Iron(III) Complexes 29–34
- H. A. Milane, T. F. Vandamme, M.-jie Zhao, M. Kessler, G. Ubeaud, B. Aguilar Ochandio, and L. Jung:** Free Radical Scavenging Activity of Hydroxyflavone Sodium Salts Compared to the Activity of Hydroxyflavones Themselves. . 35–41
- V. Sokol, I. Tominić, R. Tomaš, and M. Višić:** Thermodynamics of the Association Reaction of Li^+ and Br^- Ions in 2-Butanol + Water Mixtures from Conductivity Measurements. 43–47
- B. B. Tewari:** Determination of Stability Constants of Metal-methylcysteine and Metal-methylcysteine-cysteine Complexes by Paper Ionophoretic Technique 49–53
- V. Lather and A. K. Madan:** Application of Graph Theory: Topological Models for Prediction of CDK-1 Inhibitory Activity of Aloisines 55–61
- A. Z. A. Hassanien, E.-S. I. Ibrahim, and M. E. Affifi:** Synthesis of Some New Pyridines, Thienopyridines and Pyrido[2,3:4',5']thieno[3',2'-d']pyrimidin-8-ones from 2-acetylbenzoimidazole . . . 63–70
- A. Krisko, M. Kveder, S. Pecar, and G. Pifat:** A Study of Caffeine Binding to Human Serum Albumin 71–77
- H. A. Qaseer:** Rhodium(III) Complexes with 2-(2'-Pyridyl)quinoline. Synthesis and Spectroscopic Characterization 79–84
- Š. Komorsky-Lovrić and B. Nigović:** Kinetics of the Surface Redox Reaction of 2-Hydroxy-5-[(4-sulphophenyl)azo]benzoic Acid 85–90
- M. Živković, K. Žarković, Lj. Škrinjar, G. Waeg, M. Poljak-Blaži, S. Borović Šunjić, R. J. Schaur, and N. Žarković:** A New Method for Detection of HNE-histidine Conjugates in Rat Inflammatory Cells 91–98
- E. Kardash and Y. I. Tur'yan:** Acid Value Determination in Vegetable Oils by Indirect Titration in Aqueous-alcohol Media. 99–103
- M. Jukić and M. Miloš:** Catalytic Oxidation and Antioxidant Properties of Thyme Essential Oils (*Thymus vulgaris* L.) 105–110
- N. Kitanovski, Lj. Golič, A. Meden, and B. Čeh:** Nonstoichiometric Bromo-chloro-pyridine-MoIII Complexes 111–120
- A. Bosak, I. Primožič, M. Oršulić, S. Tomić, and V. Simeon-Rudolf:** Enantiomers of Quinuclidin-3-ol Derivatives: Resolution and Interactions with Human Cholinesterases 121–128
- K. Varmuza, W. Demuth, M. Karlovits, and H. Scsibraný:** Binary Substructure Descriptors for Organic Compounds 141–149
- D. Zucić:** Annotation of Transmembrane Segments of Experimentally Solved Bacterial Porins and Adhesins. 151–158
- A. R. Ashrafi and M. Hamadian:** Symmetry Properties of Some Chemical Graphs 159–163
- S. Bajaj, S. S. Sami, and A. K. Madan:** Prediction of Anti-Inflammatory Activity of *N*-Arylanthranilic Acids: Computational Approach Using Refined Zagreb Indices. 165–174
- N. Raos:** Estimation of Stability Constants of Copper(II) Chelates with Amino Acids by Overlapping Spheres Method 175–180
- S. Botrić, P. Županović, and D. Juretić:** Is the Stationary Current Distribution in a Linear Planar Electric Network Determined by the Principle of Maximum Entropy Production? 181–184
- M. Rožman:** Gas Phase Structure of Sodiated Amino Acids Probed by H/D Exchange Reactions. . 185–188

- L. Pogliani:** A Chemical Graph Model Study of The Partition Coefficient of Halogenated Carbocompounds 189–194
- S. Fajtlowicz, P. E. John, and H. Sachs:** On Maximum Matchings and Eigenvalues of Benzenoid Graphs 195–201
- D. Vukičević and A. Graovac:** Compact Valence Sequences for Molecules with Single, Double and Triple Covalent Bonds 203–209
- U. Borštnik, M. Hodošek, and D. Janežič:** Fast Parallel Molecular Simulations 211–216
- I. László:** Topological Description and Construction of Single Wall Carbon Nanotube Junctions 217–221
- D. Vukičević, H. W. Kroto, and M. Randić:** Atlas of Kekulé Valence Structures of Buckminsterfullerene 223–234
- D. Vukičević and N. Trinajstić:** Comparison of the Hosoya Z-Indices for Simple and General Graphs of the Same Size 235–239
- S. Nikolić, A. Miličević, and N. Trinajstić:** Graphical Matrices in Chemistry 241–250
- T. Došlić:** Perfect Matchings in Lattice Animals and Lattice Paths with Constraints 251–259
- J. Kašnar-Šamprc, Lj. Glavaš-Obrovac, M. Pavlak, I. Mihaljević, V. Mrljak, N. Štambuk, P. Konjevoda, and B. Žinić:** Synthesis, Spectroscopic Characterization and Biological Activity of *N*-1-Sulfonylcytosine Derivatives 261–267
- S. Kazazić, S. P. Kazazić, L. Klasinc, M. Rožman, and D. Sržić:** Gas Phase Ligation Kinetics of Metal Monocations with Pyrene 269–274
- G. Restrepo and J. L. Villavices:** From Trees (Dendrograms and Consensus Trees) to Topology 275–281
- A. Graovac, D. Vukičević, D. Ježek, and J. Žerovnik:** Simplified Computation of Matchings in Polygraphs 283–287
- R. Tomaš, I. Tominić, M. Višić, and V. Sokol:** Complexation of Cd^{2+} and Cl^- Ions in Aqueous Mixtures of 2-Butanol 289–294
- V. Z. Vassileva and P. P. Petrova:** Formation and Characterization of Bisthiourea Zinc Formate 295–299
- A. Fajdetić, G. Kobrehel, G. Lazarevski, V. Štimac, and S. Mutak:** 3-*O*-Acyl Derivatives of Bridged-15-Membered Azalides: Synthesis, Structural Determination and Antibacterial Activity 301–312
- I. Jerković, J. Mastelić, I. Blažević, M. Šindler-Kulyk, and D. Vikić-Topić:** GC-MS Characterization of Acetylated *O*-glucofuranosides: Direct Glucosylation of Volatile Alcohols from Unprotected Glucose 313–318
- H. O. Gutzeit, S. V. Tokalov, J. Ludwig-Müller, and G. Rusak:** Monitoring Flavonoid Metabolism in Human Cells by Exploiting Fluorescence Elicited upon Quercetin/Protein Interactions 337–342
- M. Harget, L. Lukić-Bilela, H. Četković, W. E. G. Müller, and V. Gamulin:** Identification and Analysis of cDNAs Encoding Two Nucleoside Diphosphate Kinases (NDPK/Nm23) from the Marine Sponge *Suberites domuncula* 343–348
- E. Has-Schön, H. Lepeduš, Lj. Jerabek, and V. Cesar:** Influence of Storage Temperature on Total Peroxidase Activity in Crude Extracts from *Picea abies* L. Karst. Needles 349–353
- H. Lepeduš, V. Gaća, and V. Cesar:** Guaiacol Peroxidases and Photosynthetic Pigments during Maturation of Spruce Needles 355–360
- A. Šverko, S. Sobočanec, T. Balog, B. Kušić, V. Šverko, and T. Marotti:** Does Long-term Exercise Modulate Oxidant/Antioxidant Status in Humans? Comparison between Lipid Peroxidation and Catalase Activity in Fresh and Stored Samples 361–366
- M. Čalić, D. Jelić, R. Antolović, K. Nujić, N. Marjanović, D. Stupin Polančec, S. Vikić-Topić, and D. Verbanac:** Flavonoids as Inhibitors of Lck and Fyn Kinases 367–374
- R. Turk, D. Juretić, D. Gereš, N. Turk, V. Simeon-Rudolf, B. Rekić, and A. Svetina:** Oxidative Stress in Dairy Cows – Serum Paraoxonase Activity Related to Hepatomegaly 375–378
- J. Varljen, D. Detel, L. Batičić, V. Eraković, N. Štrbo, M. Čuk, and Č. Milin:** Age Dependent Activity of Brush-border Enzymes in BALB/c Mice 379–384
- K. Barišić, L. Rumora, J. Petrik, I. Čepelak, and T. Žanić-Grubišić:** Ochratoxin A Induces Apoptosis in LLC-PK1 Cells via JNK and p38 MAPK Activation 385–392
- S. Džijan, D. Primorac, M. Marcikić, Š. Anđelinović, D. Sutlović, S. Dabelić, and G. Lauc:** High Estimated Likelihood Ratio Might Be Insufficient in a DNA-lead Process of Identification of War Victims 393–396
- J. Giacometti, Č. Milin, M. Tota, M. Čuk, and B. Radošević-Stašić:** Incorporation of Fatty Acids into Tissue Phospholipids in Mice Fed Diets Rich in *n*-9 and *n*-6 Fatty Acids 397–404
- L. Grama, A. Nagy, C. Scholl, T. Huber, and M. S. Z. Kellermayer:** Local Variability in the Mechanics of Titin's Tandem Ig Segments 405–411
- M. Matulić, I. Jevtov, M. Ferenac, N. Škrobot, K. Tominaga, and I. Rubelj:** Human Chromosome 1 in Mouse Immortal Cell Background 413–418
- L. Rumora, K. Barišić, J. Petrik, and T. Žanić Grubišić:** Concentration-dependent Effects of Peroxovanadium Compound bpV(phen) on PC12 Cell Survival 419–425

- J. Varljen, B. Mijandrušić Sinčić, L. Batičić, N. Varljen, D. Detel, and A. Lekić:** Clinical Relevance of the Serum Dipeptidyl Peptidase IV (DPP IV/CD26) Activity in Adult Patients with Crohn's Disease and Ulcerative Colitis 427–432
- S. Dabelić, M. Flögel, and J. Dumić:** Effects of Aspirin and Indomethacin on Galectin-3 433–440
- Č. Milin, M. Tota, R. Domitrović, R. Pantović, J. Giacometti, M. Čuk, I. Mrakovčić-Šutić, H. Jakovac, and B. Radošević-Stašić:** Olive and Corn Oil Enriched Diets as Modulators of Mineral Content in the Submandibular Gland during Liver Regeneration 441–446
- J. Petrik, A. Malić, K. Barišić, L. Rumora, T. Kőszegi, S. Pepeljnjak, T. Žanić-Grubišić, and I. Čepelak:** Ochratoxin A Induces Apoptotic and Necrotic Renal Cell Death 447–453
- R. Pantović, P. Draganić, V. Eraković, B. Blagović, Č. Milin, and A. Simonić:** Effect of Hyperbaric Oxygenation on the Level of Free Fatty Acids in Experimental Spinal Cord Injury in Rabbits 455–462
- B. Balen, A. Zamfir, S. Y. Vakhrushev, M. Krsnik-Rasol, and J. Peter-Katalinić:** Determination of *Mammillaria gracillis* N-glycan Patterns by ESI Q-TOF Mass Spectrometry 463–477
- B. Blagović, M. Mesarić, V. Marić, and J. Rupčić:** Characterization of Lipid Components in the Whole Cells and Plasma Membranes of Baker's Yeast 479–484
- I. Gutman, L. Türker, B. Furtula, and V. Vučković:** The McClelland Number of Conjugated Hydrocarbons 485–488
- B. Hollas, I. Gutman, and N. Trinajstić:** On Reducing Correlations between Topological Indices 489–492
- D. Plavšić, D. Vukičević, and M. Randić:** On Canonical Numbering of Carbon Atoms in Fullerenes: C₆₀ Buckminsterfullerene 493–502
- A. A. Toropov, A. P. Toropova, and I. Gutman:** Comparison of QSPR Models Based on Hydrogen-Filled Graphs and on Graphs of Atomic Orbitals 503–509
- V. Šimunić-Mežnarić, E. Meštović, V. Tomišić, M. Žgela, D. Vikić-Topić, H. Čičak, P. Novak, and H. Vančik:** Nitrosobenzene Library: A Model for Studying Selectivity in the Solid State Nitroso-Azodioxide Dimerization 511–518
- Ž. Jeričević and Ž. Kušter:** Non-linear optimization of parameters in Michaelis-Menten kinetics 519–523
- A. Miličević and N. Raos:** Estimation of Stability Constants of Copper(II) and Nickel(II) Chelates with 1,2-Diaminoethanes by the Overlapping Spheres Method 525–534
- D. Tješić-Drinković, D. Tješić-Drinković, N. Štambuk, P. Konjevoda, A. Votava-Raić, M. Vinković, and D. Vikić-Topić:** Alpha-Melanocyte Stimulating Hormone Reduces Colonic Damage in Rat Model of Inflammatory Bowel Disease 535–539
- R. Kiralj and M. M. C. Ferreira:** Chemometric and Molecular Modeling Study of 1*H*-Indole-3-acetic Acid Derivatives with Auxin Activity . . . 541–549
- M. Kožul, I. Stolić, B. Žinić, and M. Bajić:** Synthesis of Bisbenzamidine Derivatives in Benzothiothiophene Series 551–555
- A. Afkhami, T. Madrakian, A. Abdolmaleki:** Sensitive Kinetic-Spectrophotometric Determination of Sb^{III} Based on Its Inhibitory Effect on the Decolorization Reaction of Methyl Orange . 569–574
- R. Djogić, V. Cuculić and M. Branica:** Precipitation of Uranium(VI) Peroxide (UO₄) in Sodium Perchlorate Solution 575–580
- V. Koleva:** Vibrational Behavior of Calcium Hydrogen Triacetate Monohydrate, CaH(CH₃COO)₃ · H₂O 581–591
- T. Dolenec, B. Vokal, and M. Dolenec:** Nitrogen – 15 signals of anthropogenic nutrient loading in *Anemonia sulcata* as a possible indicator of human sewage impacts on marine coastal ecosystems: a case study of Pirovac Bay and the Murter Sea (Central Adriatic). 593–600
- Ž. Jeričević:** Approximate solution of dense linear systems. 601–615
- V. Drušković, V. Vojković, and T. Antonić:** Extraction of Ruthenium and Its Separation from Rhodium and Palladium with 4-Pyridone Derivatives. 617–626
- M. Stubičar, M. Očko, J. L. Sarrao, N. Stubičar, and Ž. Šimek:** Influence of the electronic structure on the plastic properties of the single crystal Yb_xY_{1-x}InCu₄ and YbAg_yIn_{1-y}Cu₄ systems . . 627–632
- M. M. H. Bhuiyan, K. M. M. Rahman, M. K. Hossain, M. A. Rahim, and M. I. Hossain:** Fused Pyrimidines. Part II: Synthesis and Antimicrobial activity of Some Furo[3,2-*e*]imidazo[1,2-*c*]pyrimidines and Furo[2,3-*d*]pyrimidines 633–636

NOTES

- B. Cetina-Čizmek, S. Vodopija Mandić, and S. Ašperger:** Mechanism of Ferrocenylmethyl Benzoate Formolysis and Acetolysis. 129–132
- M. Petkovšek and T. Pisanski:** Counting Disconnected Structures: Chemical Trees, Fullerenes, *I*-graphs, and others 563–567

AUTHOR'S REVIEW

- I. Weygand-Đurašević:** Croatian School on tRNA and Aminoacyl-tRNA Synthetases 319–324

REVIEW

- I. Weber:** Cryoelectron Tomography: Implications for Actin Cytoskeleton Research 325–331

FEATURE ARTICLES

- D. Verbanac, D. Jelić, V. Stepanić, I. Tatić, D. Žiher, and S. Kostrun:** Combined *in silico* and *in vitro* Approach to Drug Screening 133–139
- S. Vikić-Topić:** Outsourcing in Pharmaceutical Research and Development. Opportunities and Challenges 333–336

CONFERENCE PAPERS

- B. D. Hudson, D. C. Whitley, A. Browne, and M. G. Ford:** Extraction of Comprehensible Logical Rules from Neural Networks. Application of TREPAN in Bio and Chemoinformatics. . . . 557–561

PREFACES

- A. Graovac, B. Pokrić, and D. Vikić-Topić:** Foreword XXI
- A. Graovac:** EDWARD CAMERON KIRBY – *curriculum vitae*. XXIII–XXIV
- K. Barišić:** Foreword XXXIX
- M. Flögel:** ŽELJKO KUĆAN – *curriculum vitae* XLI–XLIII
- T. Narandža:** Greeting and Reminiscence. . . . XLV–XLVI
- N. Trinajstić:** Editorial LV

APPENDICES

- S. Ašperger:** Letter to the Editor A23–A26
- Obituaries. . . . A1–A2, A3, A27–A28, A29–A30, A31–A32
- Instructions to Authors A5–A8
- Announcements and Advertisements A9–A12
- Book reviews. A13, A15, A17–A19
- Erratum A33
- Minutes of the Annual Assembly of the Croatian Chemical Society (in Croatian). A35–A45
- Acknowledgement to Reviewers A47–A48
- Contents and Index of *Croatica Chemica Acta* Vol. **78** A51–A60

INDEX

ORIGINAL SCIENTIFIC PAPERS (OP) – IZVORNI ZNANSTVENI RADOVI (OP)
NOTES (N) – BILJEŠKE (N)
PRELIMINARY COMMUNICATIONS (PC) – PRETHODNA SAOPĆENJA (PC)
AUTHORS REVIEWS (AR) – AUTORSKI PREGLEDI (AR)
REVIEWS (R) – PRIKAZI (R)
FEATURE ARTICLES (FA) – AKTUALNI PRIKAZI (FA)
CONFERENCE PAPERS (CP) – KONFERENCIJSKI PRILOZI (CP)
ESSAYS (E) – ESEJI (E)
REFLECTIONS (RS) – OSVRTI (RS)
INTRODUCTORY ARTICLES (IA) – UVODNI ČLANCI (IA)

Abdolmaleki, A.: see Afkhami, A.

Afifi, M. E.: see Hassanien, A. Z. A.

Afkhami, A., Madrakian, T., and Abdolmaleki, A.:
Sensitive Kinetic-Spectrophotometric Determination of Sb^{III} Based on Its Inhibitory Effect on the Decolorization Reaction of Methyl Orange . 569–574

Aguilar Ochandio, B.: see Milane, H. A.

Andelinović, Š.: see Džijan, S.

Antolović, R.: see Čalić, M.

Antonić, T.: see Drušković, V.

Ashrafi, A. R. and Hamadanian, M.: Symmetry Properties of Some Chemical Graphs. 159–163

Ašperger, S.: Letter to the Editor A23–A26

Ašperger, S.: see Cetina-Čizmek, B.

Bajaj, S., Sami, S. S., and Madan, A. K.: Prediction of Anti-Inflammatory Activity of *N*-Arylanthranilic Acids: Computational Approach Using Refined Zagreb Indices. 165–174

Bajić, M.: see Kožul, M.

Balen, B., Zamfir, A., Vakhrushev, S. Y., Krsnik-Rasol, M., and Peter-Katalinić, J.: Determination of *Mammillaria gracillis* *N*-glycan Patterns by ESI Q-TOF Mass Spectrometry 463–477

Balog, T.: see Šverko, A.

Barišić, K., Rumora, L., Petrik, J., Čepelak, I., and Žanić-Grubišić, T.: Ochratoxin A Induces Apoptosis in LLC-PK1 Cells *via* JNK and p38 MAPK Activation. 385–392

Barišić, K.: Foreword XXXIX

Barišić, K.: see Petrik, J.

Barišić, K.: see Rumora, L.

Batičić, L.: see Varljen, J.

Batičić, L.: see Varljen, J.

Baumann, K.: see Zimmer, R.

Bhuiyan, M. M. H., Rahman, K. M. M., Hossain, M. K., Rahim, M. A., and Hossain, M. I.: Fused Pyrimidines. Part II: Synthesis and Antimicrobial activity of Some Furo[3,2-*e*]imidazo[1,2-*c*]pyrimidines and Furo[2,3-*d*]pyrimidines 633–636

Blažević, I.: see Jerković, I.

Blagović, B., Mesarić, M., Marić, V., and Rupčić, J.: Characterization of Lipid Components in the Whole Cells and Plasma Membranes of Baker's Yeast 479–484

Blagović, B.: see Pantović, R.

Borštnik, U., Hodošček, M., and Janežič, D.: Fast Parallel Molecular Simulations 211–216

Borović Šunjić, S.: see Živković, M.

Bosak, A., Primožič, I., Oršulić, M., Tomić, S., and Simeon-Rudolf, V.: Enantiomers of Quinuclidin-3-ol Derivatives: Resolution and Interactions with Human Cholinesterases 121–128

Bosnar, S., Bronić, J., Krznarić, I., and Subotić, B.: Influence of the Concentrations of Aluminium and Silicon in the Liquid Phase on the Growth Kinetics of Zeolite A and X Microcrystals 1–8

Botrić, S., Županović, P., and Juretić, D.: Is the Stationary Current Distribution in a Linear Planar Electric Network Determined by the Principle of Maximum Entropy Production? 181–184

Branica, M.: see Djogić, R.

Bronić, J.: see Bosnar, S.

Browne, A.: see Hudson, B. D.

Cesar, V.: see Has-Schön, E.

Cesar, V.: see Lepeduš, H.

- Cetina-Čizmek, B., Vodopija Mandić, S., and Ašperger, S.:** Mechanism of Ferrocenylmethyl Benzoate Formolysis and Acetolysis 129–132
- Cuculić, V.:** see Djogić, R.
- Čalić, M., Jelić, D., Antolović, R., Nujić, K., Marjanović, N., Stupin Polančec, D., Vikić-Topić, S., and Verbanac, D.:** Flavonoids as Inhibitors of Lck and Fyn Kinases 367–374
- Čeh, B.:** see Kitanovski, N.
- Čepelak, I.:** see Barišić, K.
- Čepelak, I.:** see Petrik, J.
- Čičak, H.:** see Šimunić-Mežnarić, V.
- Četković, H.:** see Harcet, M.
- Čuk, M.:** see Giacometti, J.
- Čuk, M.:** see Milin, Č.
- Čuk, M.:** see Varljen, J.
- Dabelić, S., Flögel, M., and Dumić, J.:** Effects of Aspirin and Indomethacin on Galectin-3 . . . 433–440
- Dabelić, S.:** see Džijan, S.
- Demuth, W.:** see Varmuza, K.
- Detel, D.:** see Varljen, J.
- Detel, D.:** see Varljen, J.
- Djogić, R., Cuculić, V., and Branica, M.:** Precipitation of Uranium(VI) Peroxide (UO₄) in Sodium Perchlorate Solution 575–580
- Dolenec, M.:** see Dolenec, T.
- Dolenec, T., Vokal, B. and Dolenec, M.:** Nitrogen – 15 signals of anthropogenic nutrient loading in *Anemonia sulcata* as a possible indicator of human sewage impacts on marine coastal ecosystems: a case study of Pirovac Bay and the Murter Sea (Central Adriatic) 593–600
- Domitrović, R.:** see Milin, Č.
- Došlić, T.:** Perfect Matchings in Lattice Animals and Lattice Paths with Constraints 251–259
- Draganić, P.:** see Pantović, R.
- Drušković, V., Vojković, V., and Antoni, T.:** Extraction of Ruthenium and Its Separation from Rhodium and Palladium with 4-Pyridone Derivatives 617–626
- Dumić, J.:** see Dabelić, S.
- Džijan, S., Primorac, D., Marcikić, M., Anđelino-
vić, Š., Sutlović, D., Dabelić, S., and Lauc, G.:** High Estimated Likelihood Ratio Might Be Insufficient in a DNA-lead Process of Identification of War Victims 393–396
- Enchev, V.:** see Marinov, M.
- Eraković, V.:** see Pantović, R.
- Eraković, V.:** see Varljen, J.
- Fajdetić, A., Kobrehel, G., Lazarevski, G., Štimac, V., and Mutak, S.:** 3-*O*-Acyl Derivatives of Bridge-15-Membered Azalides: Synthesis, Structural Determination and Antibacterial Activity . . . 301–312
- Fajtlowicz, S., John, P. E., and Sachs, H.:** On Maximum Matchings and Eigenvalues of Benzenoid Graphs 195–201
- Ferenac, M.:** see Matulić, M.
- Ferreira, M. M. C.:** see Kiralj, R.
- Flögel, M.:** Željko Kućan – *curriculum vitae* . XLI–XLIII
- Flögel, M.:** see Dabelić, S.
- Ford, M. G.:** see Hudson, B. D.
- Furtula, B.:** see Gutman, I.
- Gaća, V.:** see Lepeduš, H.
- Gamulin, V.:** see Harcet, M.
- Gereš, D.:** see Turk, R.
- Giacometti, J., Milin, Č., Tota, M., Čuk, M., and Radošević-Stašić, B.:** Incorporation of Fatty Acids into Tissue Phospholipids in Mice Fed Diets Rich in n-9 and n-6 Fatty Acids. 397–404
- Giacometti, J.:** see Milin, Č.
- Glavaš-Obrovac, Lj.:** see Kašnar-Šamprec, J.
- Golić, Lj.:** see Kitanovski, N.
- Grama, L., Nagy, A., Scholl, C., Huber, T., and Kellermayer, M. S. Z.:** Local Variability in the Mechanics of Titin's Tandem Ig Segments . . 405–411
- Graovac, A., Pokrić, B., and Vikić-Topić, D.:** Foreword XXI
- Graovac, A., Vukičević, D., Ježek, D., and Žerovnik, J.:** Simplified Computation of Matchings in Polygraphs 283–287
- Graovac, A.:** see Vukičević, D.
- Graovac, A.:** Edward Cameron Kirby – *curriculum vitae* XXIII–XXIV
- Grassberger, M. A.:** see Zimmer, R.
- Gutman, I., Türker, L., Furtula, B., and Vučković, V.:** The McClelland Number of Conjugated Hydrocarbons 485–488
- Gutman, I.:** see Hollas, B.
- Gutman, I.:** see Toropov, A. A.
- Gutzeit, H. O., Tokalov, S. V., Ludwig-Müller, J., and Rusak, G.:** Monitoring Flavonoid Metabolism in Human Cells by Exploiting Fluorescence Elicited upon Quercetin/Protein Interactions . . 337–342
- Haidl, E.:** see Zimmer, R.
- Hamadani, M.:** see Ashrafi, A. R.
- Harcet, M., Lukić-Bilela, L., Četković, H., Müller, W. E. G., and Gamulin, V.:** Identification and Analysis of cDNAs Encoding Two Nucleoside Diphosphate Kinases (NDPK/Nm23) from the Marine Sponge *Suberites domuncula* 343–348
- Hassanien, A. Z. A., Ibrahim, E.-S. I., and Afifi, M. E.:** Synthesis of Some New Pyridines, Thie-

- nopyridines and Pyrido[2,3:4',5']thieno[3',2'-d]-pyrimidin-8-ones from 2-acetylbenzoimidazole . . 63–70
- Has-Schön, E., Lepeduš, H., Jerabek, Lj., and Cesar, V.:** Influence of Storage Temperature on Total Peroxidase Activity in Crude Extracts from *Picea abies* L. Karst. Needles 349–353
- Hodošek, M.:** see Borštnik, U.
- Hollas, B., Gutman, I., and Trinajstić, N.:** On Reducing Correlations between Topological Indices 489–492
- Hossain, M. I.:** see Bhuiyan, M. M. H.
- Hossain, M. K.:** see Bhuiyan, M. M. H.
- Huber, T.:** see Grama, L.
- Hudson, B. D., Whitley, D. C., Browne, A., and Ford, M. G.:** Extraction of Comprehensible Logical Rules from Neural Networks. Application of TREPAN in Bio and Chemoinformatics. . 557–561
- Ibrahim, E.-S. I.:** see Hassanien, A. Z. A.
- Ivanova, G.:** see Marinov, M.
- Izaković, M.:** see Šima, J.
- Jakovac, H.:** see Milin, Č.
- Janežič, D.:** see Borštnik, U.
- Jelić, D.:** see Čalić, M.
- Jelić, D.:** see Verbanac, D.
- Jerabek, Lj.:** see Has-Schön, E.
- Jeričević, Ž. and Kušter, Ž.:** Non-linear optimization of parameters in Michaelis-Menten kinetics . 519–523
- Jeričević, Ž.:** Approximate solution of dense linear systems. 601–615
- Jerković, I., Mastelić, J., Blažević, I., Šindler-Kulyk, M., and Vikić-Topić, D.:** GC-MS Characterization of Acetylated *O*-glucofuranosides: Direct Glucosylation of Volatile Alcohols from Unprotected Glucose 313–318
- Jevtov, I.:** see Matulić, M.
- Ježek, D.:** see Graovac, A.
- John, P. E.:** see Fajtlowicz, S.
- Jukić, M. and Miloš, M.:** Catalytic Oxidation and Antioxidant Properties of Thyme Essential Oils (*Thymus vulgaris* L.) 105–110
- Jung, L.:** see Milane, H. A.
- Juretić, D.:** see Botrić, S.
- Juretić, D.:** see Turk, R.
- Kašnar-Šamprec, J., Glavaš-Obrovac, Lj., Pavlak, M., Mihaljević, I., Mrljak, V., Štambuk, N., Konjevoda, P., and Žinić, B.:** Synthesis, Spectroscopic Characterization and Biological Activity of *N*-1-Sulfonylcytosine Derivatives . . . 261–267
- Kardash, E. and Tur'yan, Y. I.:** Acid Value Determination in Vegetable Oils by Indirect Titration in Aqueous-alcohol Media. 99–103
- Karlović, M.:** see Varmuza, K.
- Kazazić, S., Kazazić, S. P., Klasinc, L., Rožman, M., and Srzić, D.:** Gas Phase Ligation Kinetics of Metal Monocations with Pyrene 269–274
- Kazazić, S. P.:** see Kazazić, S.
- Kellermayer, M. S. Z.:** see Grama, L.
- Kessler, M.:** see Milane, H. A.
- Kiralj, R. and Ferreira, M. M. C.:** Chemometric and Molecular Modeling Study of 1*H*-Indole-3-acetic Acid Derivatives with Auxin Activity. . . 541–549
- Kitanovski, N., Golić, Lj., Meden, A., and Čeh, B.:** Nonstoichiometric Bromo-chloro-pyridine-MoIII Complexes 111–120
- Klasinc, L.:** see Kazazić, S.
- Kožul, M., Stolić, I., Žinić, B., and Bajić, M.:** Synthesis of Bisbenzamidine Derivatives in Benzo-[*c*]thiophene Series 551–555
- Kobrehel, G.:** see Fajdetic, A.
- Koleva, V.:** Vibrational Behavior of Calcium Hydrogen Triacetate Monohydrate, $\text{CaH}(\text{CH}_3\text{COO})_3 \cdot \text{H}_2\text{O}$ 581–591
- Komorsky-Lovrić, Š. and Nigović, B.:** Kinetics of the Surface Redox Reaction of 2-Hydroxy-5-[(4-sulphophenyl)azo]benzoic Acid. 85–90
- Konjevoda, P.:** see Kašnar-Šamprec, J.
- Konjevoda, P.:** see Tješić-Drinković, D.
- Kostrun, S.:** see Verbanac, D.
- Köszegi, T.:** see Petrik, J.
- Kriško, A., Kveder, M., Pečar, S., and Pifat, G.:** A Study of Caffeine Binding to Human Serum Albumin 71–77
- Kroto, H. W.:** see Vukičević, D.
- Krsnik-Rasol, M.:** see Balen, B.
- Krznarić, I.:** see Bosnar, S.
- Kušić, B.:** see Šverko, A.
- Kušter, Ž.:** see Jeričević, Ž.
- Kveder, M.:** see Kriško, A.
- László, I.:** Topological Description and Construction of Single Wall Carbon Nanotube Junctions . 217–221
- Lather V. and Madan, A. K.:** Application of Graph Theory: Topological Models for Prediction of CDK-1 Inhibitory Activity of Aloisines 55–61
- Lauc, G.:** see Džijan, S.
- Lazarevski, G.:** see Fajdetic, A.
- Lekić, A.:** see Varljen, J.
- Lepeduš, H., Gaća, V., and Cesar, V.:** Guaiacol Peroxidases and Photosynthetic Pigments during Maturation of Spruce Needles 355–360
- Lepeduš, H.:** see Has-Schön, E.
- Ludwig-Müller, J.:** see Gutzeit, H. O.

- Lukić-Bilela, L.:** see Harcet, M.
- Madan, A. K.:** see Bajaj, S.
- Madan, A. K.:** see Lather V.
- Madrakian, T.:** see Afkhami, A.
- Malić, A.:** see Petrik, J.
- Marcikić, M.:** see Džijan, S.
- Marić, V.:** see Blagović, B.
- Marinov, M., Minchev, S., Stoyanov, N., Ivanova, G., Spassova, M., and Enchev, V.:** Synthesis, Spectroscopic Characterization and *ab initio* Investigation of Thioanalogues of Spirohydantoins . 9–16
- Marjanović, N.:** see Čalić, M.
- Marotti, T.:** see Šverko, A.
- Mastelić, J.:** see Jerković, I.
- Matulić, M., Jevtov, I., Ferenac, M., Škrobot, N., Tominaga, K., and Rubelj, I.:** Human Chromosome 1 in Mouse Immortal Cell Background . 413–418
- Meden, A.:** see Kitanovski, N.
- Mesarić, M.:** see Blagović, B.
- Meštrović, E.:** see Šimunić-Mežnarić, V.
- Mihaljević, I.:** see Kašnar-Šamprec, J.
- Mijandrušić Sinčić, B.:** see Varljen, J.
- Milane, H. A., Vandamme, T. F., Zhao, M.-jie, Kesler, M., Ubeaud, G., Aguilar Ochandio, B., and Jung, L.:** Free Radical Scavenging Activity of Hydroxyflavone Sodium Salts Compared to the Activity of Hydroxyflavones Themselves . . 35–41
- Miličević, A.:** see Nikolić, S.
- Miličević, A. and Raos, N.:** Estimation of Stability Constants of Copper(II) and Nickel(II) Chelates with 1,2-Diaminoethanes by the Overlapping Spheres Method 525–534
- Milin, Č., Tota, M., Domitrović, R., Pantović, R., Giacometti, J., Čuk, M., Mrakovčić-Šutić, I., Jakovac, H., and Radošević-Stašić, B.:** Olive and Corn Oil Enriched Diets as Modulators of Mineral Content in the Submandibular Gland during Liver Regeneration 441–446
- Milin, Č.:** see Giacometti, J.
- Milin, Č.:** see Pantović, R.
- Milin, Č.:** see Varljen, J.
- Miloš, M.:** see Jukić, M.
- Minchev, S.:** see Marinov, M.
- Mrakovčić-Šutić, I.:** see Milin, Č.
- Mrljak, V.:** see Kašnar-Šamprec, J.
- Müller, W. E. G.:** see Harcet, M.
- Mutak, S.:** see Fajdetić, A.
- Nagy, A.:** see Grama, L.
- Naranda, T.:** Greeting and Reminiscence . . . XLV–XLVI
- Nigović, B.:** see Komorsky-Lovrić, Š.
- Nikolić, S., Miličević, A., and Trinajstić, N.:** Graphical Matrices in Chemistry 241–250
- Novak, P.:** see Šimunić-Mežnarić, V.
- Nujić, K.:** see Čalić, M.
- Očko, M.:** see Stubičar, M.
- Oršulić, M.:** see Bosak, A.
- Pantović, R., Draganić, P., Eraković, V., Blagović, B., Milin, Č., and Simonić, A.:** Effect of Hyperbaric Oxygenation on the Level of Free Fatty Acids in Experimental Spinal Cord Injury in Rabbits 455–462
- Pantović, R.:** see Milin, Č.
- Pavlak, M.:** see Kašnar-Šamprec, J.
- Pečar, S.:** see Kriško, A.
- Pepeljnjak, S.:** see Petrik, J.
- Peter-Katalinić, J.:** see Balen, B.
- Petkovšek, M. and Pisanski, T.:** Counting Disconnected Structures: Chemical Trees, Fullerenes, *I*-graphs, and others 563–567
- Petrik, J., Malić, A., Barišić, K., Rumora, L., Kőszegi, T., Pepeljnjak, S., Žanić-Grubišić, T., and Čepelak, I.:** Ochratoxin A Induces Apoptotic and Necrotic Renal Cell Death. 447–453
- Petrik, J.:** see Barišić, K.
- Petrik, J.:** see Rumora, L.
- Petrova, P. P.:** see Vassileva, V. Z.
- Pifat, G.:** see Kriško, A.
- Pisanski, T.:** see Petkovšek, M.
- Plavšić, D., Vukičević, D., and Randić, M.:** On Canonical Numbering of Carbon Atoms in Fullerenes: C₆₀ Buckminsterfullerene 493–502
- Pogliani, L.:** A Chemical Graph Model Study of The Partition Coefficient of Halogenated Carbocompounds 189–194
- Pokrić, B.:** see Graovac, A.
- Poljak-Blaži, M.:** see Živković, M.
- Primorac, D.:** see Džijan, S.
- Primožič, I.:** see Bosak, A.
- Qaseer, H. A.:** Rhodium(III) Complexes with 2-(2'-Pyridyl)quinoline. Synthesis and Spectroscopic Characterization 79–84
- Radošević-Stašić, B.:** see Giacometti, J.
- Radošević-Stašić, B.:** see Milin, Č.
- Rahim, M. A.:** see Bhuiyan, M. M. H.
- Rahman, K. M. M.:** see Bhuiyan, M. M. H.
- Randić, M.:** see Plavšić, D.
- Randić, M.:** see Vukičević, D.
- Raos, N.:** Estimation of Stability Constants of Copper(II) Chelates with Amino Acids by Overlapping Spheres Method 175–180

- Raos, N.:** see Miličević, A.
- Rekić, B.:** see Turk, R.
- Restrepo, G. and Villaveces, J. L.:** From Trees (Dendrograms and Consensus Trees) to Topology . 275–281
- Rožman, M.:** Gas Phase Structure of Sodiated Amino Acids Probed by H/D Exchange Reactions . . 185–188
- Rožman, M.:** see Kazazić, S.
- Rubelj, I.:** see Matulić, M.
- Rumora, L., Barišić, K., Petrik, J., and Žanić Grubišić, T.:** Concentration-dependent Effects of Peroxovanadium Compound bpV(phen) on PC12 Cell Survival 419–425
- Rumora, L.:** see Barišić, K.
- Rumora, L.:** see Petrik, J.
- Rupčić, J.:** see Blagović, B.
- Rusak, G.:** see Gutzeit, H. O.
- Sachs, H.:** see Fajtlowicz, S.
- Sambi, S. S.:** see Bajaj, S.
- Sarrao, J. L.:** see Stubičar, M.
- Schaur, R. J.:** see Živković, M.
- Scholl, C.:** see Grama, L.
- Schulz, G.:** see Zimmer, R.
- Scsibrany, H.:** see Varmuza, K.
- Simeon-Rudolf, V.:** see Bosak, A.
- Simeon-Rudolf, V.:** see Turk, R.
- Simonić, A.:** see Pantović, R.
- Sobočanec, S.:** see Šverko, A.
- Sokol, V., Tominić, I., Tomaš, R., and Višić, M.:** Thermodynamics of the Association Reaction of Li⁺ and Br[−] Ions in 2-Butanol + Water Mixtures from Conductivity Measurements. 43–47
- Sokol, V.:** see Tomaš, R.
- Spasova, M.:** see Marinov, M.
- Sperner, H.:** see Zimmer, R.
- Srzić, D.:** see Kazazić, S.
- Stepanić, V.:** see Verbanac, D.
- Stolić, I.:** see Kožul, M.
- Stoyanov, N.:** see Marinov, M.
- Stubičar, M., Očko, M., Sarrao, J. L., Stubičar, N., and Šimek, Ž.:** Influence of the electronic structure on the plastic properties of the single crystal Yb_xY_{1-x}InCu₄ and YbAg_yIn_{1-y}Cu₄ systems 627–632
- Stubičar, N.:** see Stubičar, M.
- Stupin Polančec, D.:** see Čalić, M.
- Subotić, B.:** see Bosnar, S.
- Sutlović, D.:** see Džijan, S.
- Svetina, A.:** see Turk, R.
- Šima, J. and Izaković, M.:** Different Photoredox Reactivity of Structurally Similar Iron(III) Complexes 29–34
- Šimek, Ž.:** see Stubičar, M.
- Šimunić-Mežnarić, V., Meštrović, E., Tomišić, V., Žgela, M., Vikić-Topić, D., Čičak, H., Novak, P., and Vančik, H.:** Nitrosobenzene Library: A Model for Studying Selectivity in the Solid State Nitroso-Azodioxide Dimerization 511–518
- Šindler-Kulyk, M.:** see Jerković, I.
- Škrinjar, Lj.:** see Živković, M.
- Škrobot, N.:** see Matulić, M.
- Štambuk, N.:** see Kašnar-Šamprec, J.
- Štambuk, N.:** see Tješić-Drinković, D.
- Štimac, V.:** see Fajdetić, A.
- Štrbo, N.:** see Varljen, J.
- Šverko, A., Sobočanec, S., Balog, T., Kušić, B., Šverko, V., and Marotti, T.:** Does Long-term Exercise Modulate Oxidant/Antioxidant Status in Humans? Comparison between Lipid Peroxidation and Catalase Activity in Fresh and Stored Samples 361–366
- Šverko, V.:** see Šverko, A.
- Tatić, I.:** see Verbanac, D.
- Tewari, B. B.:** Determination of Stability Constants of Metal-methylcysteine and Metal-methylcysteine-cysteine Complexes by Paper Ionophoretic Technique 49–53
- Tješić-Drinković, D., Tješić-Drinković, D., Štambuk, N., Konjevoda, P., Votava-Raić, A., Vinković, M., and Vikić-Topić, D.:** Alpha-Melanocyte Stimulating Hormone Reduces Colonic Damage in Rat Model of Inflammatory Bowel Disease. 535–539
- Tješić-Drinković, D.:** see Tješić-Drinković, D.
- Tokalov, S. V.:** see Gutzeit, H. O.
- Tomaš, R., Tominić, I., Višić, M., and Sokol, V.:** Complexation of Cd²⁺ and Cl[−] Ions in Aqueous Mixtures of 2-Butanol. 289–294
- Tomaš, R.:** see Sokol, V.
- Tomić, S.:** see Bosak, A.
- Tominaga, K.:** see Matulić, M.
- Tominić, I.:** see Sokol, V.
- Tominić, I.:** see Tomaš, R.
- Tomišić, V.:** see Šimunić-Mežnarić, V.
- Toropov, A. A., Toropova, A. P., and Gutman, I.:** Comparison of QSPR Models Based on Hydrogen-Filled Graphs and on Graphs of Atomic Orbitals 503–509

- Toropova, A. P.:** see Toropov, A. A.
- Tota, M.:** see Giacometti, J.
- Tota, M.:** see Milin, Č.
- Trinajstić, N.:** Editorial LV
- Trinajstić, N.:** see Hollas, B.
- Trinajstić, N.:** see Nikolić, S.
- Trinajstić, N.:** see Vukičević, D.
- Tur'yan, Y. I.:** see Kardash, E.
- Turk, N.:** see Turk, R.
- Turk, R., Juretić, D., Gereš, D., Turk, N., Simeon-Rudolf, V., Rekić, B., and Svetina, A.:** Oxidative Stress in Dairy Cows – Serum Paraoxonase Activity Related to Hepatomegaly 375–378
- Türker, L.:** see Gutman, I.
- Ubeaud, G.:** see Milane, H. A.
- Vakhrushev, S. Y.:** see Balen, B.
- Vančik, H.:** see Šimunić-Mežnarić, V.
- Vandamme, T. F.:** see Milane, H. A.
- Varljen, J., Detel, D., Batičić, L., Eraković, V., Štrbo, N., Čuk, M., and Milin, Č.:** Age Dependent Activity of Brush-border Enzymes in BALB/c Mice 379–384
- Varljen, J., Mijandrušić Sinčić, B., Batičić, L., Varljen, N., Detel, D., and Lekić, A.:** Clinical Relevance of the Serum Dipeptidyl Peptidase IV (DPP IV/CD26) Activity in Adult Patients with Crohn's Disease and Ulcerative Colitis 427–432
- Varljen, N.:** see Varljen, J.
- Varmuza, K., Demuth, W., Karlovits, M., and Scsibrany, H.:** Binary Substructure Descriptors for Organic Compounds 141–149
- Vassileva, V. Z. and Petrova, P. P.:** Formation and Characterization of Bisthiourea Zinc Formate . . 295–299
- Verbanac, D., Jelić, D., Stepanić, V., Tatić, I., Žiher, D., and Kostrun, S.:** Combined *in silico* and *in vitro* Approach to Drug Screening. . . 133–139
- Verbanac, D.:** see Čalić, M.
- Višić, M.:** see Sokol, V.
- Višić, M.:** see Tomaš, R.
- Vikić-Topić, D.:** see Šimunić-Mežnarić, V.
- Vikić-Topić, D.:** see Graovac, A.
- Vikić-Topić, D.:** see Jerković, I.
- Vikić-Topić, D.:** see Tješić-Drinković, D.
- Vikić-Topić, S.:** Outsourcing in Pharmaceutical Research and Development. Opportunities and Challenges 333–336
- Vikić-Topić, S.:** see Čalić, M.
- Villaveces, J. L.:** see Restrepo, G.
- Vinković, M.:** see Tješić-Drinković, D.
- Vodopija Mandić, S.:** see Cetina-Čižmek, B.
- Vojković, V.:** see Drušković, V.
- Vokal, B.:** see Dolenec, T.
- Votava-Raić, A.:** see Tješić-Drinković, D.
- Vučković, V.:** see Gutman, I.
- Vukičević, D.:** see Graovac, A.
- Vukičević, D.:** see Plavšić, D.
- Vukičević, D. and Graovac, A.:** Compact Valence Sequences for Molecules with Single, Double and Triple Covalent Bonds 203–209
- Vukičević, D., Kroto, H. W., and Randić, M.:** Atlas of Kekulé Valence Structures of Buckminsterfullerene 223–234
- Vukičević, D. and Trinajstić, N.:** Comparison of the Hosoya Z-Indices for Simple and General Graphs of the Same Size. 235–239
- Waeg, G.:** see Živković, M.
- Weber, I.:** Cryoelectron Tomography: Implications for Actin Cytoskeleton Research 325–331
- Weygand-Đurašević, I.:** Croatian School on tRNA and Aminoacyl-tRNA Synthetases 319–324
- Whitley, D. C.:** see Hudson, B. D.
- Zamfir, A.:** see Balen, B.
- Zhao, M.-jie:** see Milane, H. A.
- Zimmer, R., Baumann, K., Sperner, H., Schulz, G., Haidl, E., and Grassberger, M. A.:** Synthetic Modifications of Ascomycin. V. Access to Novel Ascomycin Derivatives by Replacement of the Cyclohexylvinylidene Subunit 17–27
- Zucić, D.:** Annotation of Transmembrane Segments of Experimentally Solved Bacterial Porins and Adhesins. 151–158
- Žanić Grubišić, T.:** see Rumora, L.
- Žanić-Grubišić, T.:** see Barišić, K.
- Žanić-Grubišić, T.:** see Petrik, J.
- Žarković, K.:** see Živković, M.
- Žarković, N.:** see Živković, M.
- Žerovnik, J.:** see Graovac, A.
- Žgela, M.:** see Šimunić-Mežnarić, V.
- Žiher, D.:** see Verbanac, D.
- Žinić, B.:** see Kašnar-Šamprec, J.
- Žinić, B.:** see Kožul, M.
- Živković, M., Žarković, K., Škrinjar, Lj., Waeg, G., Poljak-Blaži, M., Borović Šunjić, S., Schaur, R. J., and Žarković, N.:** A New Method for Detection of HNE-histidine Conjugates in Rat Inflammatory Cells 91–98
- Županović, P.:** see Botrić, S.